

SEALED ELECTRON BEAM SOURCE

Abstract

A sealed electron beam source (12) for an imaging tube (16) is provided. The beam source (12) includes a source housing (50) with a source window (54) having a first voltage potential and a source electrode (52) having a second voltage potential. The source electrode (52) generates electrons and emits the electrons through the source window (54) to a target (32) that is external to the source housing (50). A method of supplying and directing electrons on the target (32) within the imaging tube (16) is also provided. The method includes forming the source housing (50) over the source electrode (52) and sealing the source housing (50). The electrons are generated and emitted from the source electrode (52) and directed through the source window (54) to the target (32).